

**ABSTRACT**

The application provides for methods and compositions for inhibiting demyelination, promoting remyelination and/or treating paralysis in a subject in need thereof. Preferably, such compositions include immunoglobulins (*e.g.*,  
5 antibodies, antibody fragments, and recombinantly produced antibodies or fragments), polypeptides (*e.g.*, soluble forms of the ligand proteins for integrins) and small molecules, which when administered in an effective amount inhibits demyelination and/or promotes remyelination in a patient. The compositions and methods described herein can also utilize other anti-inflammatory agents used to  
10 palliate conditions and diseases associated with demyelination.